

**What is claimed is:**

1. An articulation-navigation equipment (100) for dental surgery, capable of operating quickly in a short time in spite of a face bow without practice and manufacturing the aesthetic and functional prosthetic dentistry object easily, comprising:
  - 5 measuring parts which take basically the relation between the patient's face and teeth are arranged;
  - biting forks (71) which is biting in the oral cavity of the patient and fixes the bite plane;
  - a positioning wire (51) for camper, extending to right and left ears which measures and
  - 10 takes the camper plane C;
  - an orbital pointing pin (61) which measures and takes one of orbital;
  - a pointing rod (41) for median line which measures and takes the median line M;
  - orbital points (421) which measures and takes the right and left orbital on the frankfurt plane F;
  - 15 a pointing rod (43) for bite plane which measures and takes the bite plane O;
  - a screw (21) which is screwed on a nut (26) for adjusting the height, supporting a support base (80); and
  - a screw for fixation of the nut (26).
- 20 2. An articulation-navigation equipment for dental surgery according to claim 1, wherein the articulation-navigation equipment for dental surgery (100) further comprising:
  - the biting forks (71) as one of the measuring parts, providing at a support shaft integrally, having a large size (L), middle size (m) and small size (S) corresponding to the size of the oral cavity of the patient, and applying a modeling compound to both sides of the biting fork (71) to remain the teeth mark of the patient when the biting forks (71) are used; and
  - 25 the support shaft attached fixedly to a support base (80) and a support base (81).

3. An articulation-navigation equipment for dental surgery according to claim 1, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

detachable bite forks (72) as one of the measuring parts provided at right and left sides, exchanging the bite fork (72) whenever the patient changes for hospital infection prevention, the  
5 bite forks (72) supported by the support shaft which is attached detachably by screws (721), (811), further including

10 a nut (722) which is formed at the bite forks (72), inserting the screw (721) therein, and a screw hole (723) which is formed in the shape of rectangle, capable of fine adjusting to the horizontal direction so as to fine adjust the direction on the support shaft;

the bite forks (72) having the large size (L), middle size (m) and small size (S), corresponding to the oral cavity of the patient and applying a modeling compound to both sides of the bite fork (71) to remain the teeth mark of the patient when the bite forks (71) are used; and the support shaft which is attached fixedly to the support bases (80), (81).

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4. An articulation-navigation equipment for dental surgery according to claim 1 or 3, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

detachable bite spoon (73) as one of the measuring parts provided at right and left sides, exchanging the bite spoon (73) whenever the patient changes for hospital infection prevention,  
20 the bite spoon (73) supported by the support shaft which is attached detachably by the screws (721), (811), further including

25 the nut (722) which is formed at the bite spoon (73), inserting the screw (721) therein, and the screw hole (723) which is formed in the shape of rectangle, capable of fine adjusting to the horizontal direction so as to fine adjust the direction on the support shaft;

the bite spoon (73) having the large size (L), middle size (m) and small size (S), corresponding to the oral cavity of the patient and applying a modeling compound to both sides

of the bite spoon (73) to remain the teeth mark of the patient when the bite spoon (73) are used; and

the support shaft which is attached fixedly to the support bases (80), (81).

5        5. An articulation-navigation equipment for dental surgery according to any of claims 1 to 4, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

a positioning wire (51) for camper which measures and takes camper plane (C) as one of the measuring parts;

10      a plurality of fixing shafts which fixes the positioning wire for camper 51 and the positioning wire (51) for camper which are provided at the right and left sides of the support base, the fixing shaft (54) passing through the support base (80) and installing to move upward and downward, and fixing by screws (55) which are provided the same number of the fixing shaft (54) at the support base (80);

15      tip portions of the right and left positioning wires (51) for camper including hanging rings (52) which hangs the ears and fixing rings (53); and

the fixing ring (53) is provided at a place which hangs to a location pin (93) of the bite device when the prosthetic dentistry object is manufactured, one of the positioning wires (51) for camper being fixed by the screw via a hole which is provided at the fixing shaft (54).

20        6. An articulation-navigation equipment for dental surgery according to any of claims 1 to 4, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

an orbital pointing pin (61) as one of the measuring parts which is installed fixedly by a screw (63) which passes through the hole of an orbital point shaft (62), measuring and taking one of the orbital, having one end of the orbital point shaft (62) which is formed in the shape of a ball so as to support rotatably in the orbital range

25        an engagement part (65) which is formed at the support base (80), capable of engaging the ball part of the orbital point shaft (62) therewith; and

a screw (64) which fixes the ball part which is engaged with the engagement part (65) at a predetermined position in the orbital range.

7. An articulation-navigation equipment for dental surgery according to any of claims 1 to 5, 4, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

10      a pointing rod (41) for median line, right and left orbital points (421) and a pointing rod (43) for bite plane as the measuring parts which are installed;

15      the pointing rod (43) for bite plane which passes through a holding part (49) for the bite plane which is formed in the shape of a cross and tube and is fixed by the screw (47);

20      the holding part (49) for the bite plane which is supported fixedly by a support pole (410) which is inserted into the a support pipe (623) and is fixed by a screw (411)

25      the support pipe (623) having a ball part at one side thereof, engaging with the support base (40)

30      a screw (45) which fixes the support pipe (623) at a inclined position;

35      the support base (40) having a backside thereof which is formed in the shape of a mountain so as to engage and move slidably;

40      a concave part (82) which is formed at a support base (81);

45      a graduation (84) which is formed at the support base (81), pointing to the position; and

50      a screw (643) which fixes the support base (40) with the support base (81) at a determined position.

8. An articulation-navigation equipment for dental surgery according to any of claims 1 to 4 and 7, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

25      a pointing rod (41) for median line, right and left orbital points (421) and a pointing rod (43) for bite plane as the measuring parts which are installed;

30      the pointing rod (41) for median line which passes through an upper part of the holding

part (49) for the bite plane which is formed in the shape of a cross and tube and is fixed by the screw (46);

the holding part (49) for the bite plane which is supported fixedly by a support pole (410) at a lower part thereof;

5 the screw (46) which adjusts and fixes the upward and downward movement of the pointing rod (41);

the screw (45) which adjusts and fixes the inclination of the pointing rod (41) for median line; and

a screw (643) which adjusts the horizontal movement of the pointing rod (41) to be moved

10 the support base (40).

9. An articulation-navigation equipment for dental surgery according to any of claims 1 to 4, 7 and 8, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

15 the pointing rod (41) for median line, the right and left orbital points (421) and the pointing rod (43) for bite plane as the measuring parts which are installed;

the orbital points (421) which further includes a screw so as to hold and fix with passing through the orbital pointing rod (42)

20 the orbital pointing rod (42) which is held and fixed by a screw (481) in the state that it passes through an orbital holding part (48) which is formed in the shape of a T-letter and formed of a sleeve;

the orbital holding part (48) which is supported by the support pole (41);

the holding part (49) for the bite plane which supports the support pole (41) which is fixed by the screw (46);

25 the screw (46) which adjusts and fixes the upward and downward movement of the orbital point (421);

the screw (45) which adjusts and fixes the inclination of the orbital point (421); and

the screw (643) which adjusts the horizontal movement of the orbital point (421) to be moved the support base (40).

10. An articulation-navigation equipment for dental surgery according to any of claims 1  
5 to 9, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

a fixing base (20) as the measuring parts which is used when the articulation-navigation equipment (100) for dental surgery is supported fixedly and the taking state is confirmed or it is installed in the bite device, which is formed in the shape of a C-letter, further including a pair of screws (23) for fixing; a plurality of screw holes (24) which is formed corresponding to the 10 shape of the bite device; a fixed concave part (22), capable of engaging fixedly the nut (26) for adjustment to height of the articulation-navigation equipment (100) for dental surgery and a fixed plug (25), which is formed in the shape of a mountain, fixing the nut (26) for adjustment to height in cooperation with the fixed concave part (22).

15 11. An articulation-navigation equipment for dental surgery according to any of claims 1  
to 4 and 7 to 9, wherein the articulation-navigation equipment for dental surgery (100) further  
comprising:

a prosthetic tooth arrangement plate (431) for front teeth as the measuring parts including  
a suitable inclination which three teeth as front teeth-prosthetic tooth of the upper jaw can be  
20 adhered by a wax centering around the patient's median line M, having a curvature part  
corresponding to the curvature of the patient's front teeth of the upper jaw; a supported rod  
which supports the curvature part of the front teeth of the upper jaw, capable of using in spite of  
the pointing rod (43) for the bite plane with exchanging, passing through the holding part (49)  
for the bite plane and being fixed by the screw (47) and having the large size (L), middle size  
25 (m) and small size (S) so as to correspond to the curvature portion of the patient's front teeth.

12. An articulation-navigation equipment for dental surgery according to any of claims 1

to 4 and 7 to 9, wherein the articulation-navigation equipment for dental surgery (100) further comprising:

- a bite plane plate (432) for molar teeth and prosthetic tooth as the measuring parts which is installed, including a plane plate with the large size (L), middle size (m) and small size (S)
- 5 corresponding to a biteplate of the oral cavity of the patient so as to be able to arrange the molar teeth-prosthetic tooth of the patient's front teeth of the upper jaw and a supported rod which supports the plane plate, capable of using in spite of one of the pointing rod (43) and the front teeth arrangement plate (431) for prosthetic tooth, passing through the holding part (49) and being fixed by the screw (47); and
- 10 a biteplate with the prosthetic arrangement for the front teeth of the upper jaw, capable of arranging the bite of the molar teeth-prosthetic tooth of the upper jaw thereto on the basis of the prosthetic arrangement for the front teeth of the upper jaw decided by front teeth arrangement plate (431) after the bite plane plate (432) with the articulation-navigation equipment (100) is installed in the fixing base (20).

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